

**FIG. 1**

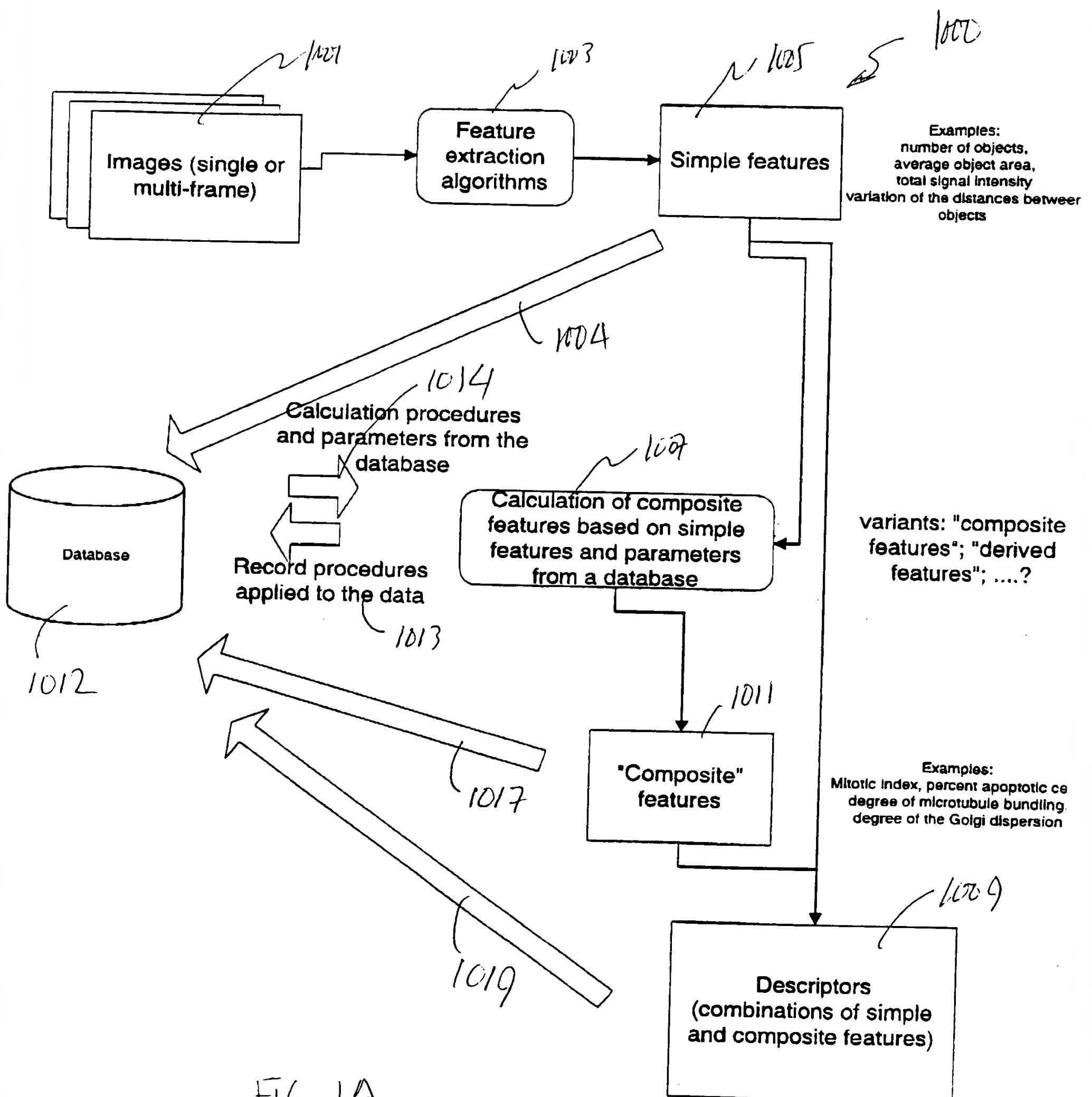
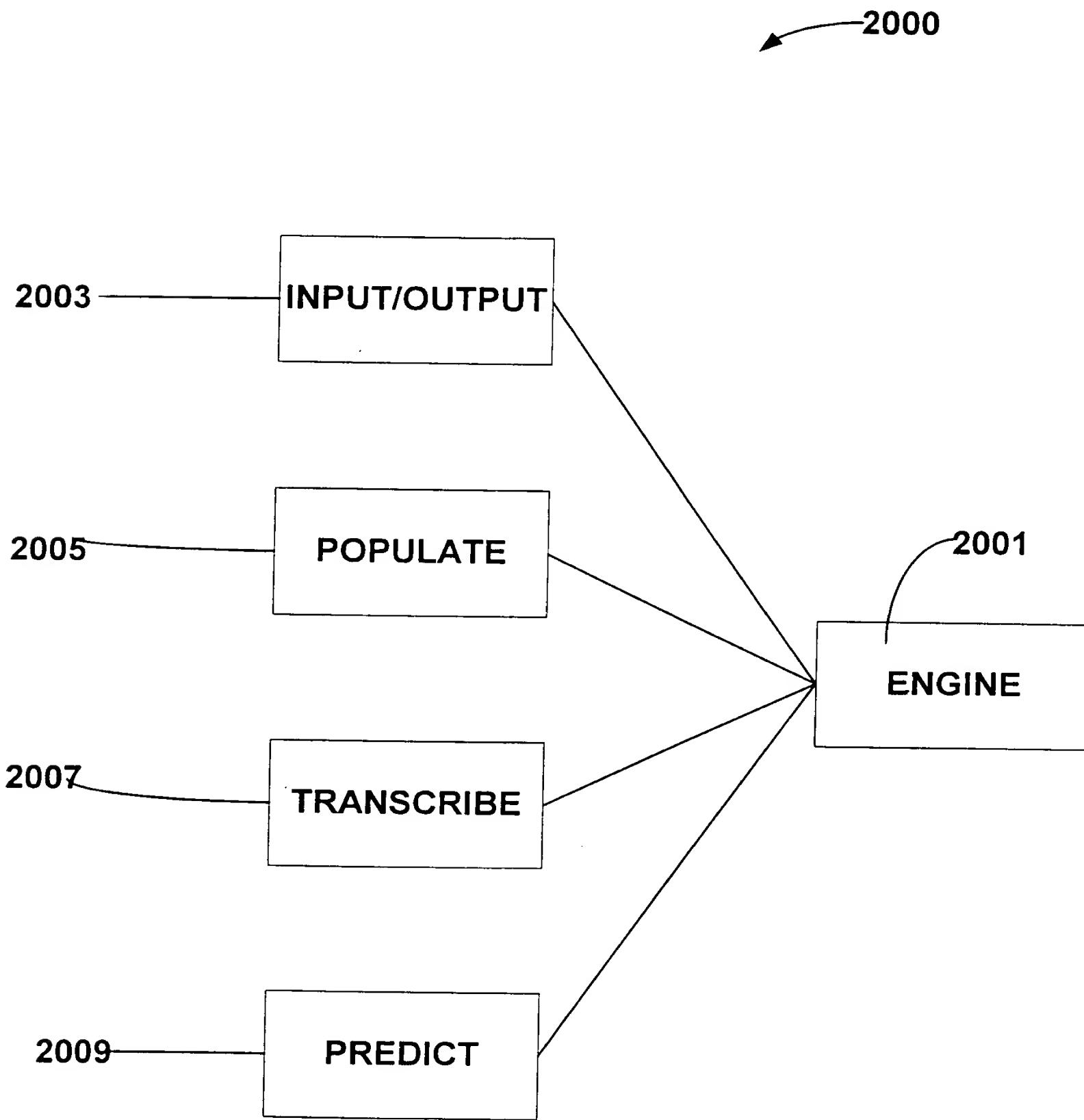
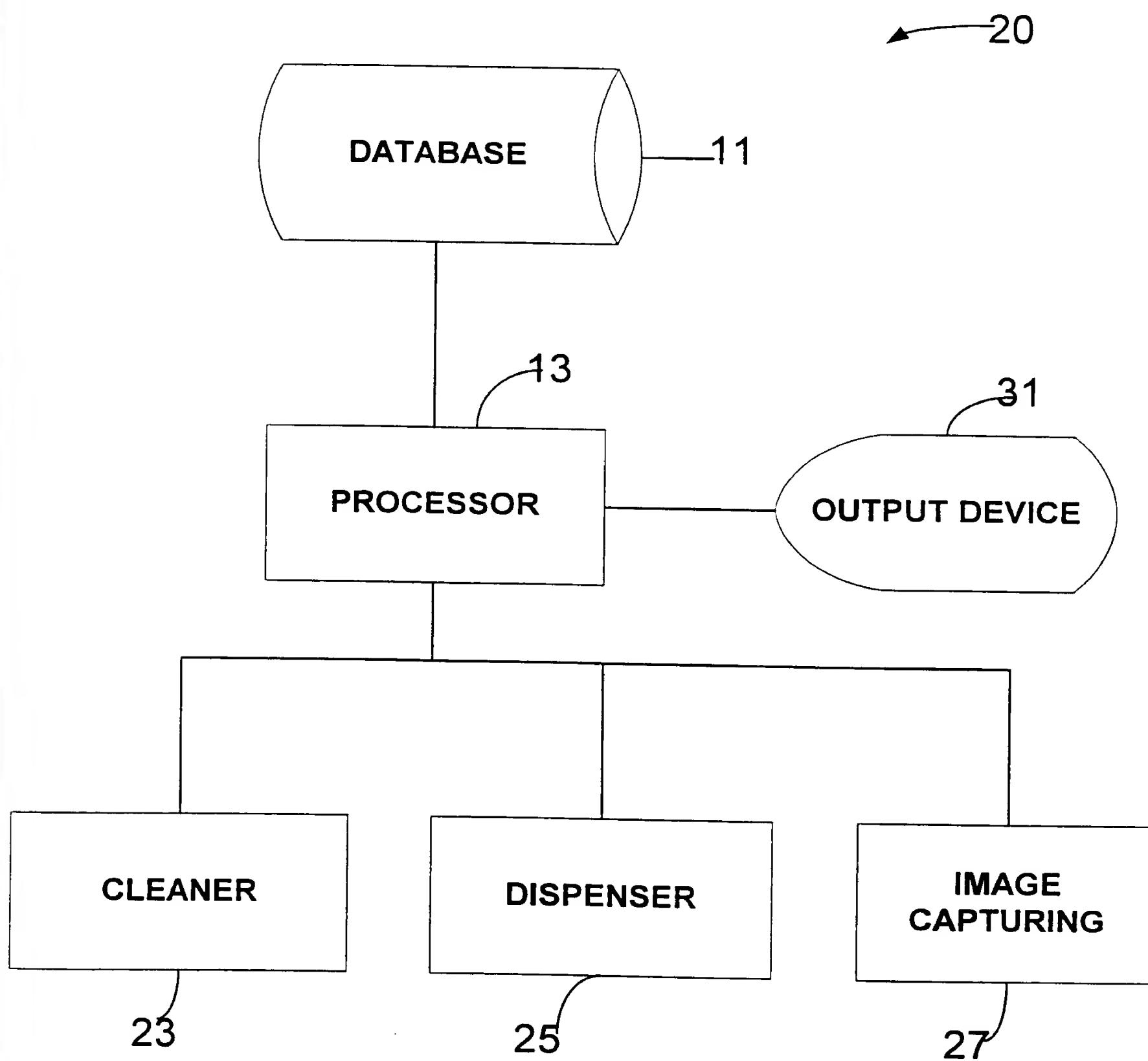


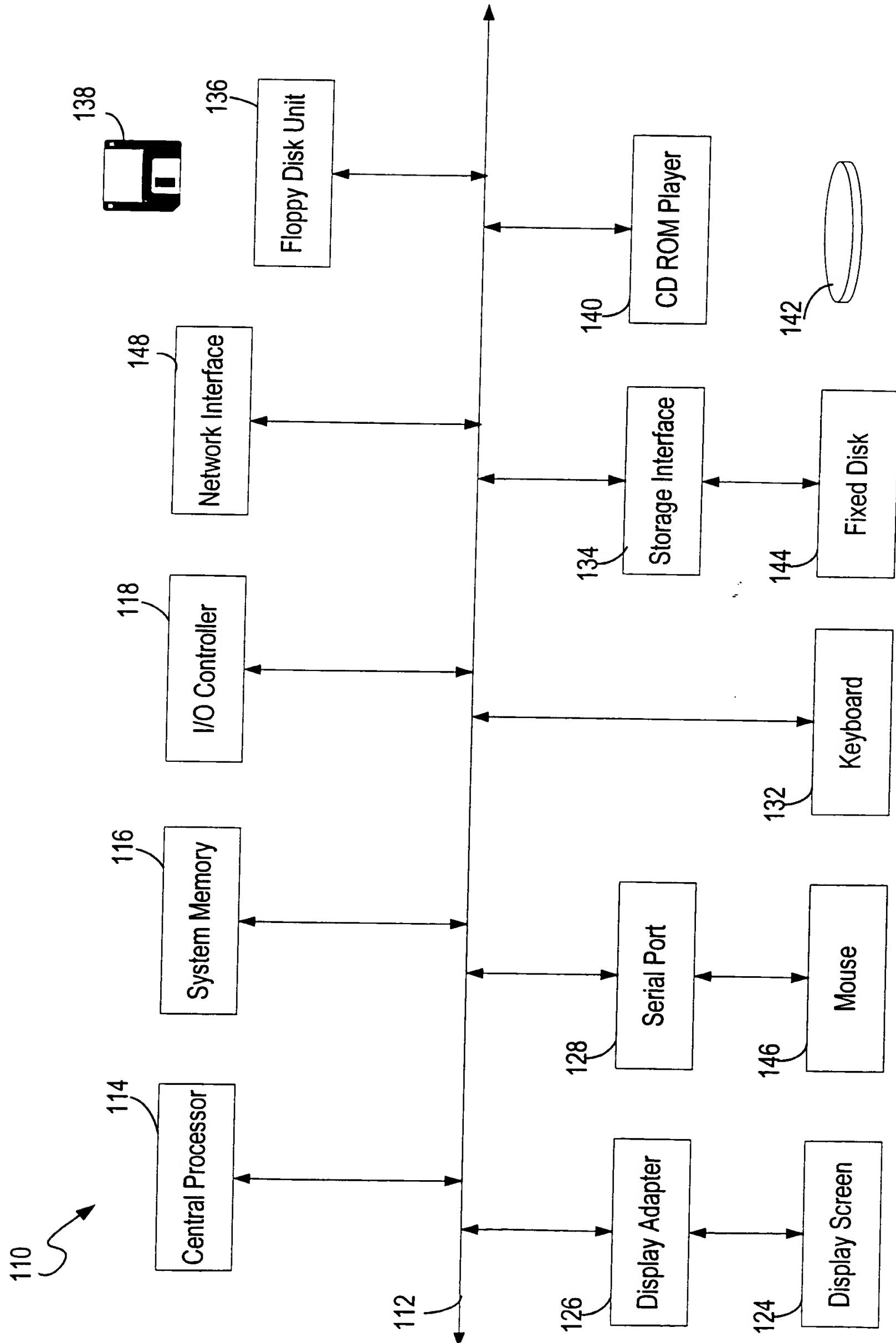
FIG. 1A



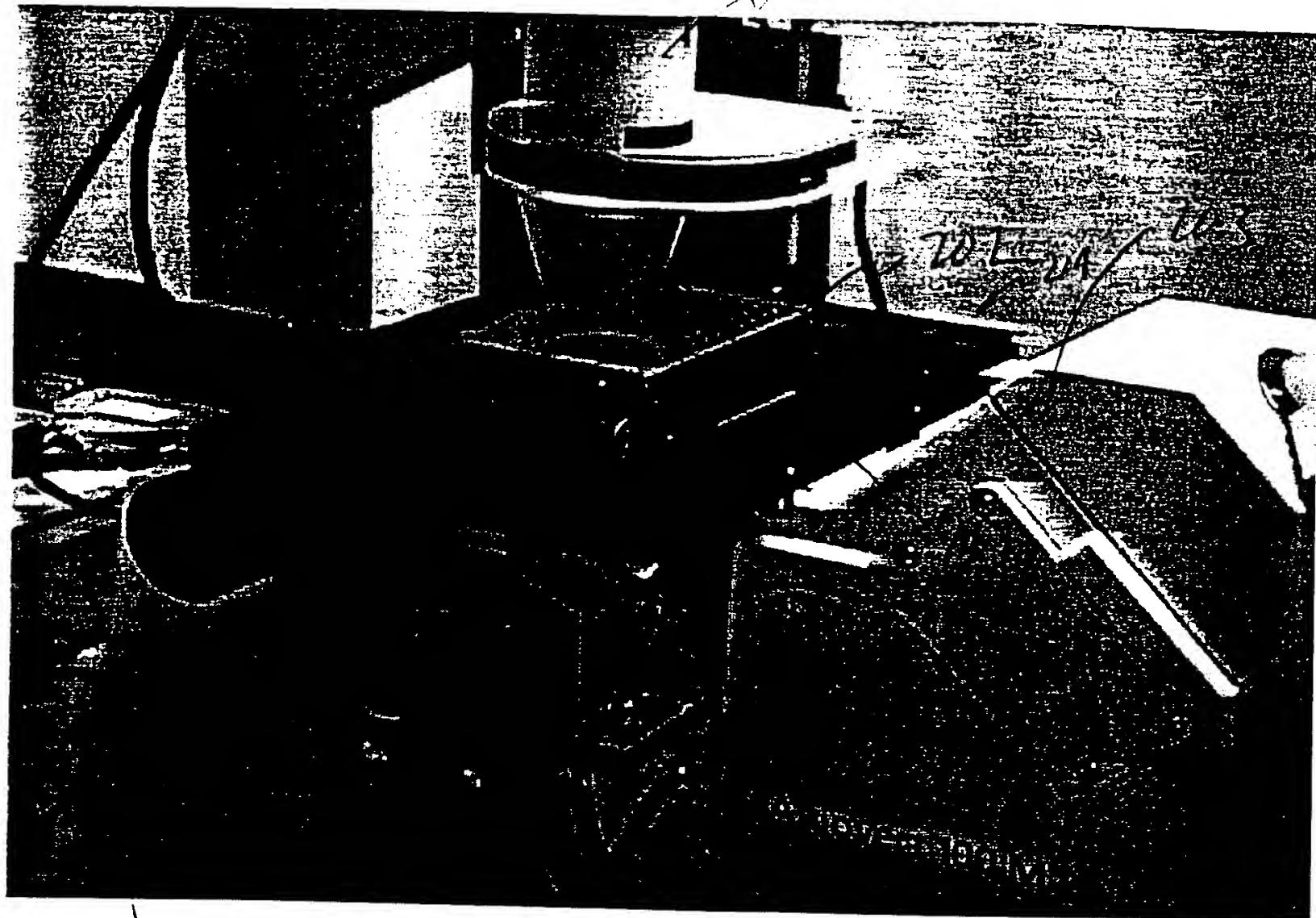
**FIG. 1B**



**FIG. 2**



F16.3



210

FIG. 4

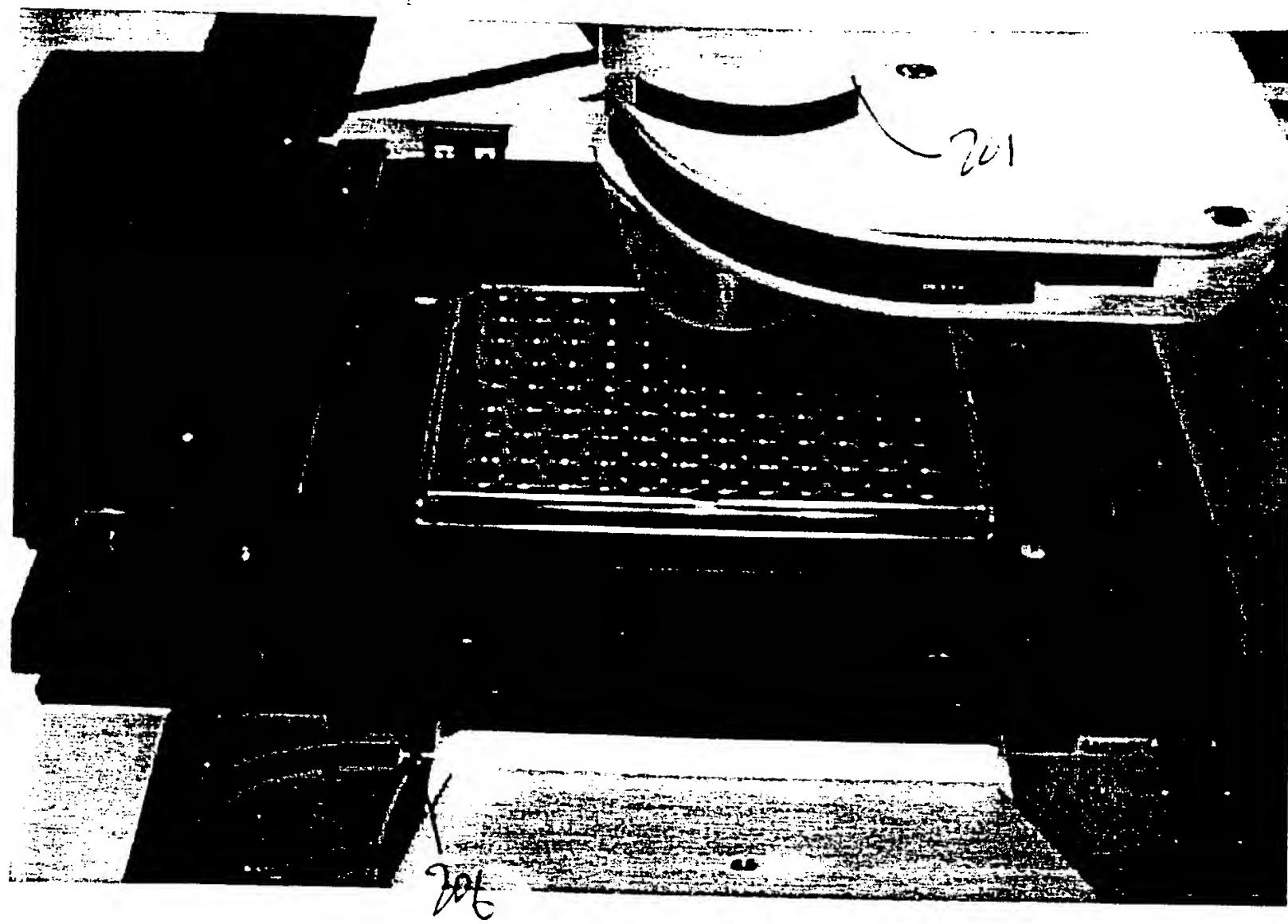


FIG 5

12-11C

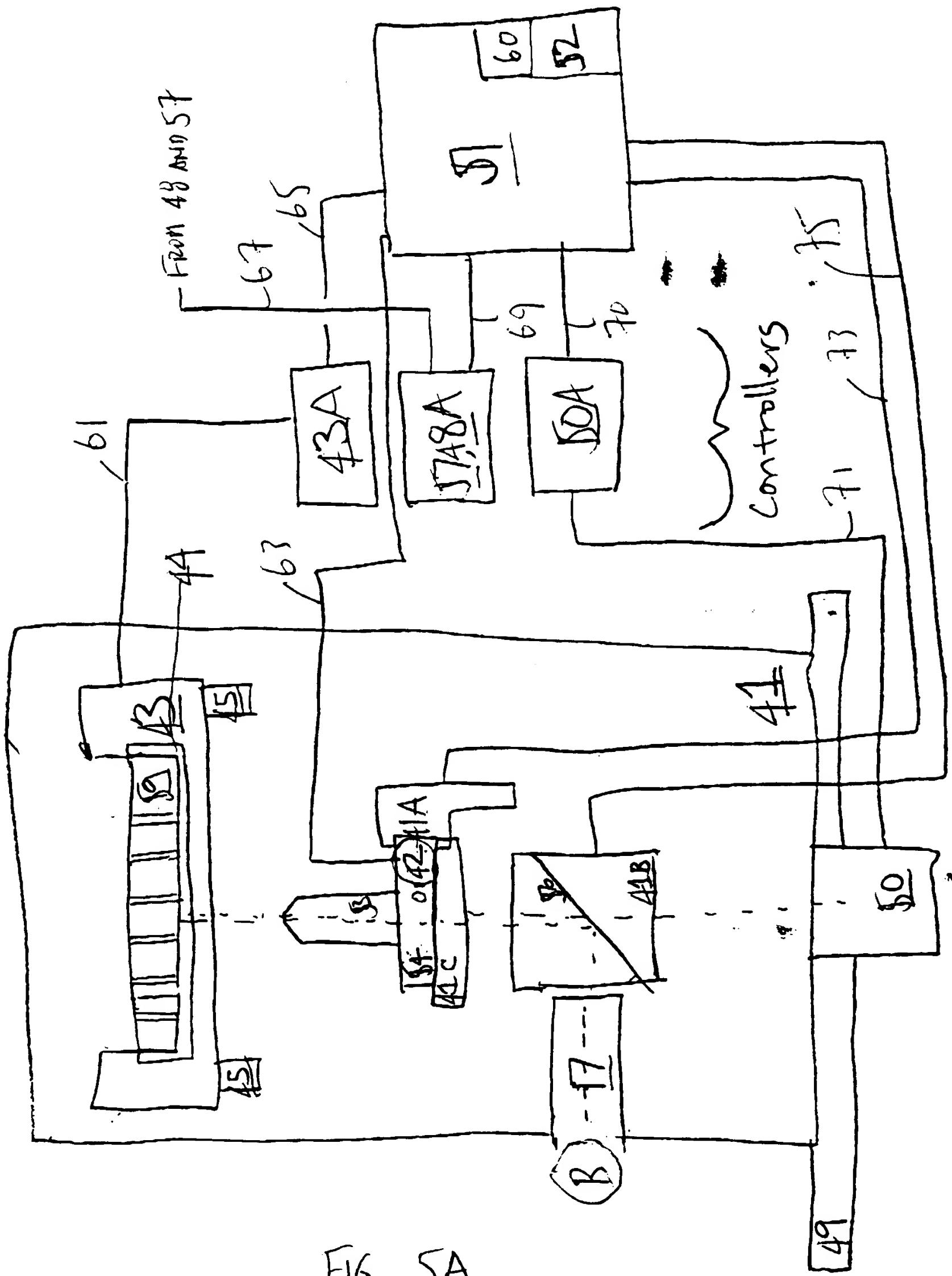


FIG. 5A

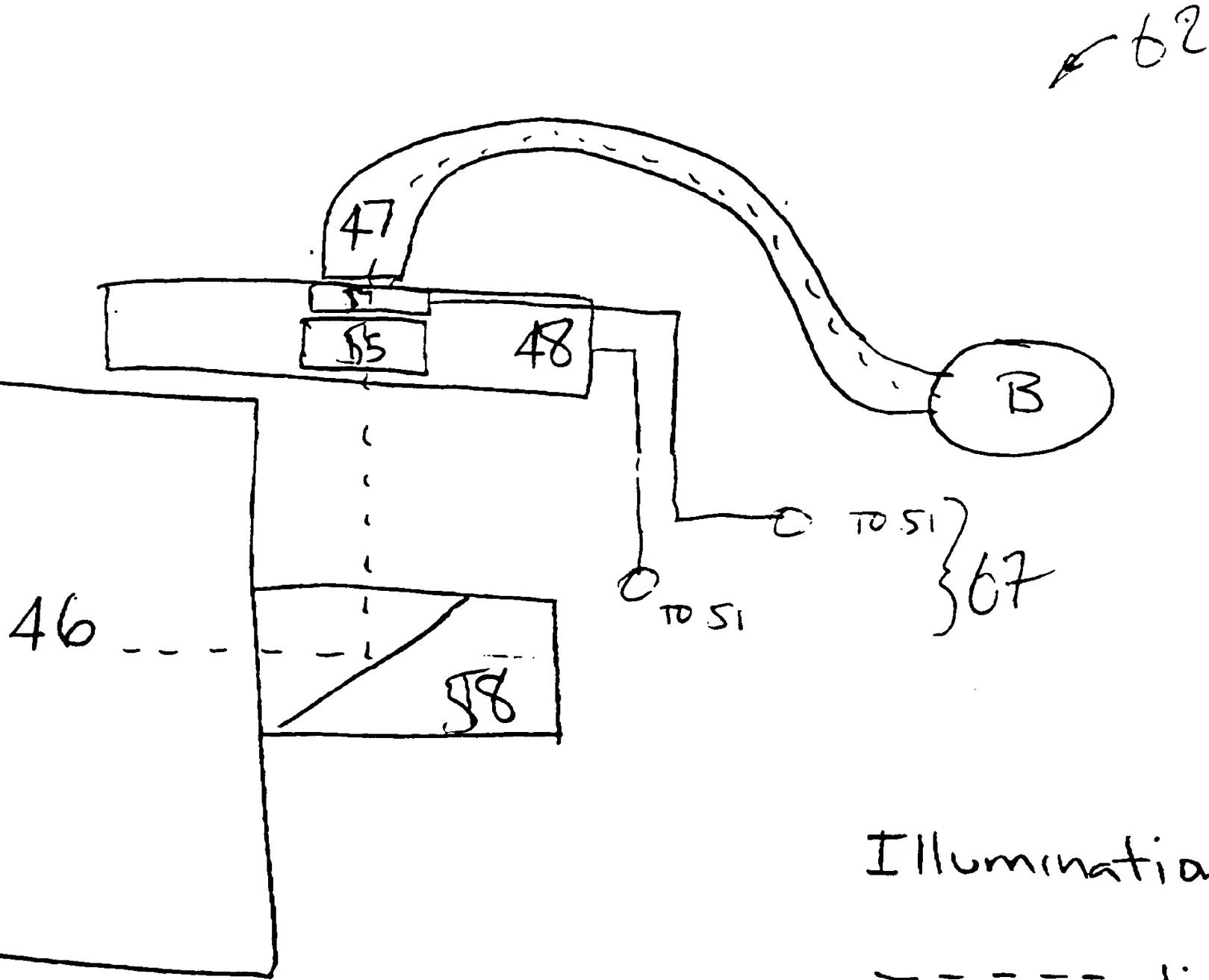
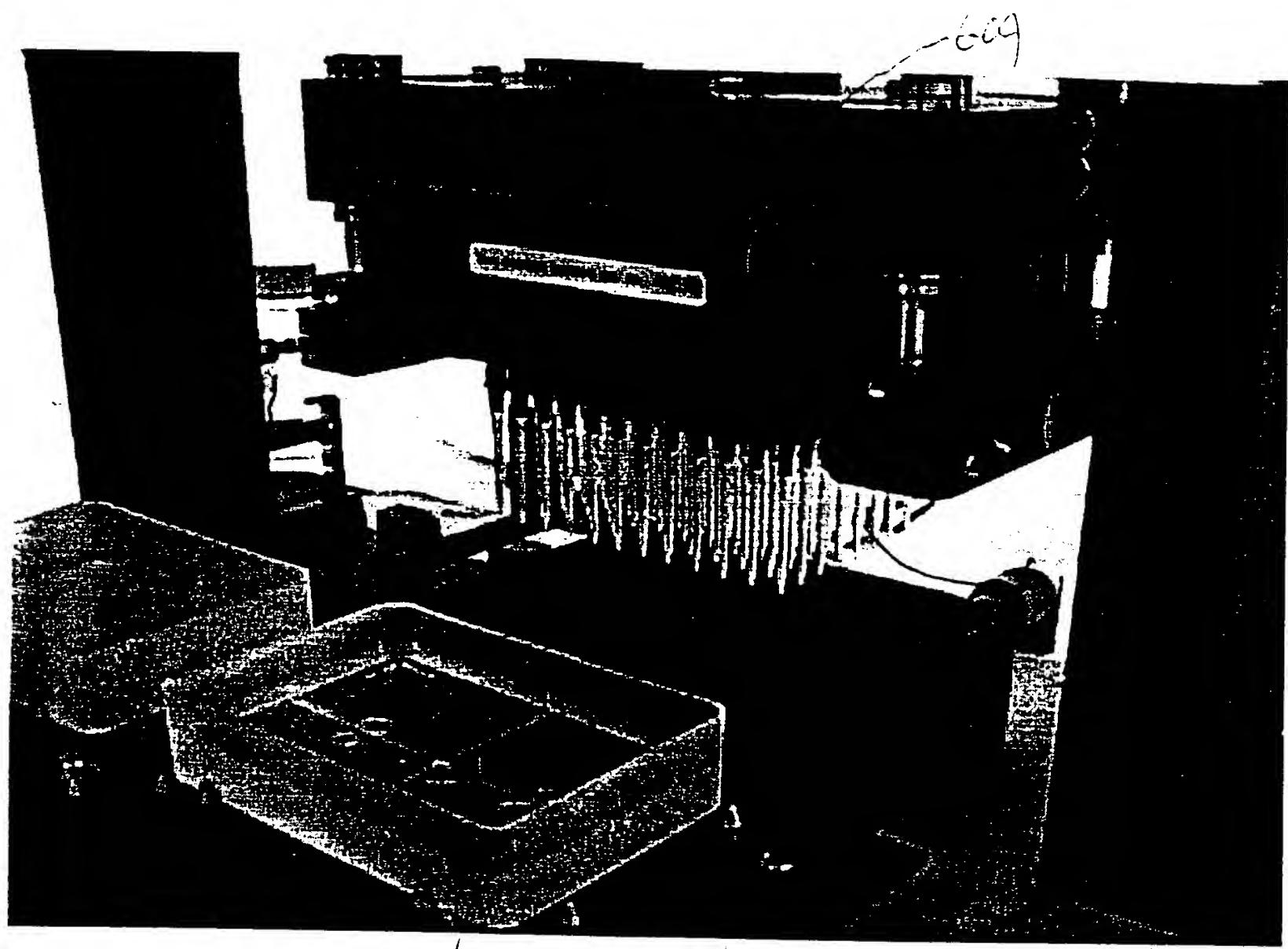


FIG. 5B

Illumination

----- light path



605

603

606

607

FIG. 6

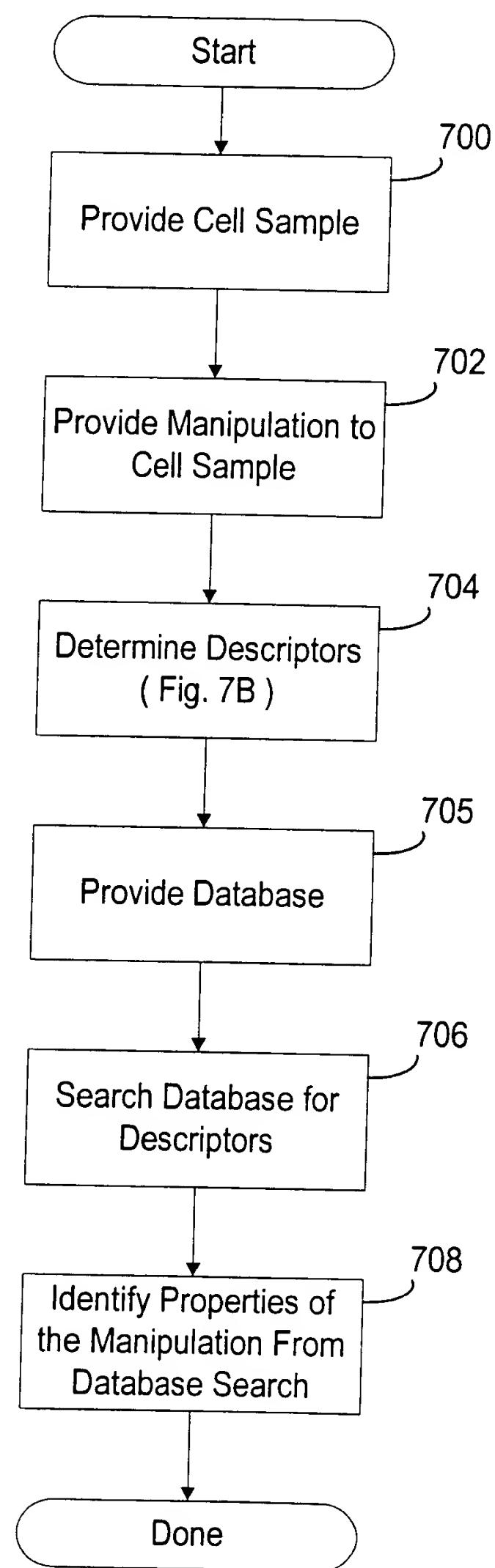


Fig. 7A

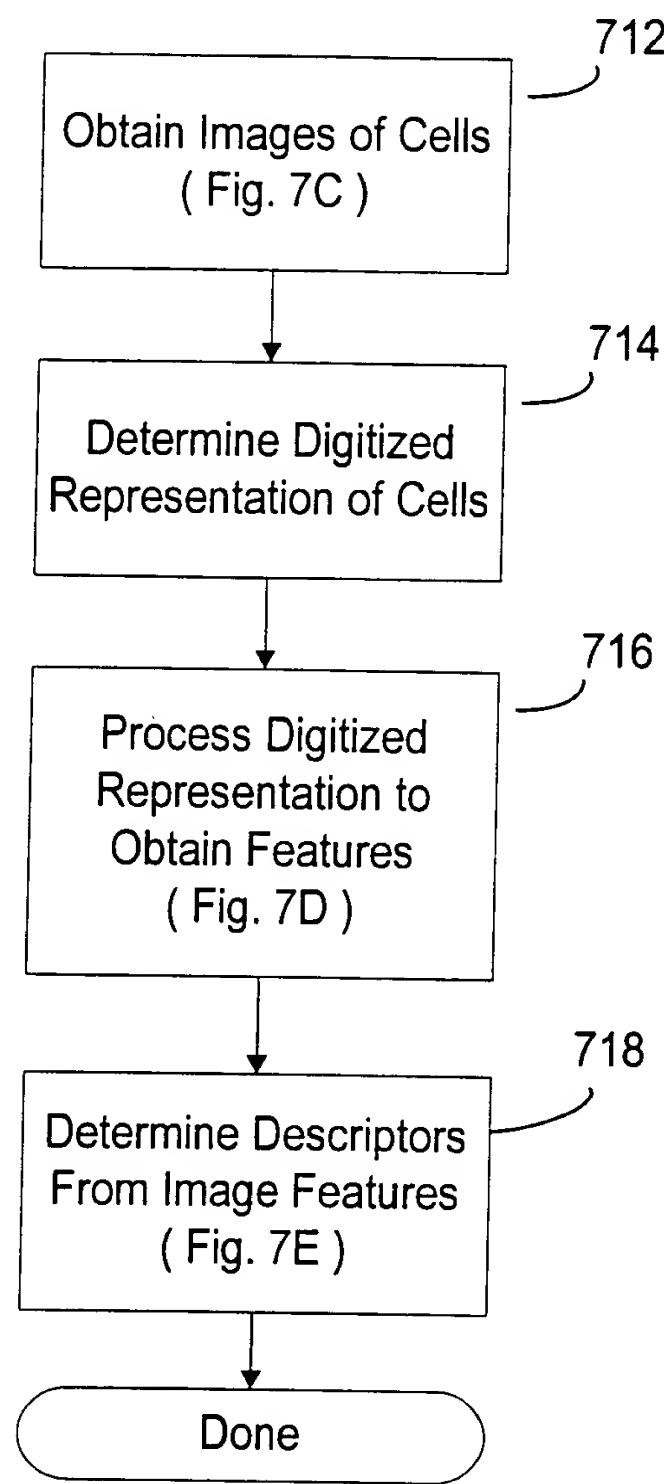


Fig. 7B  
Step 704 of Fig. 7A

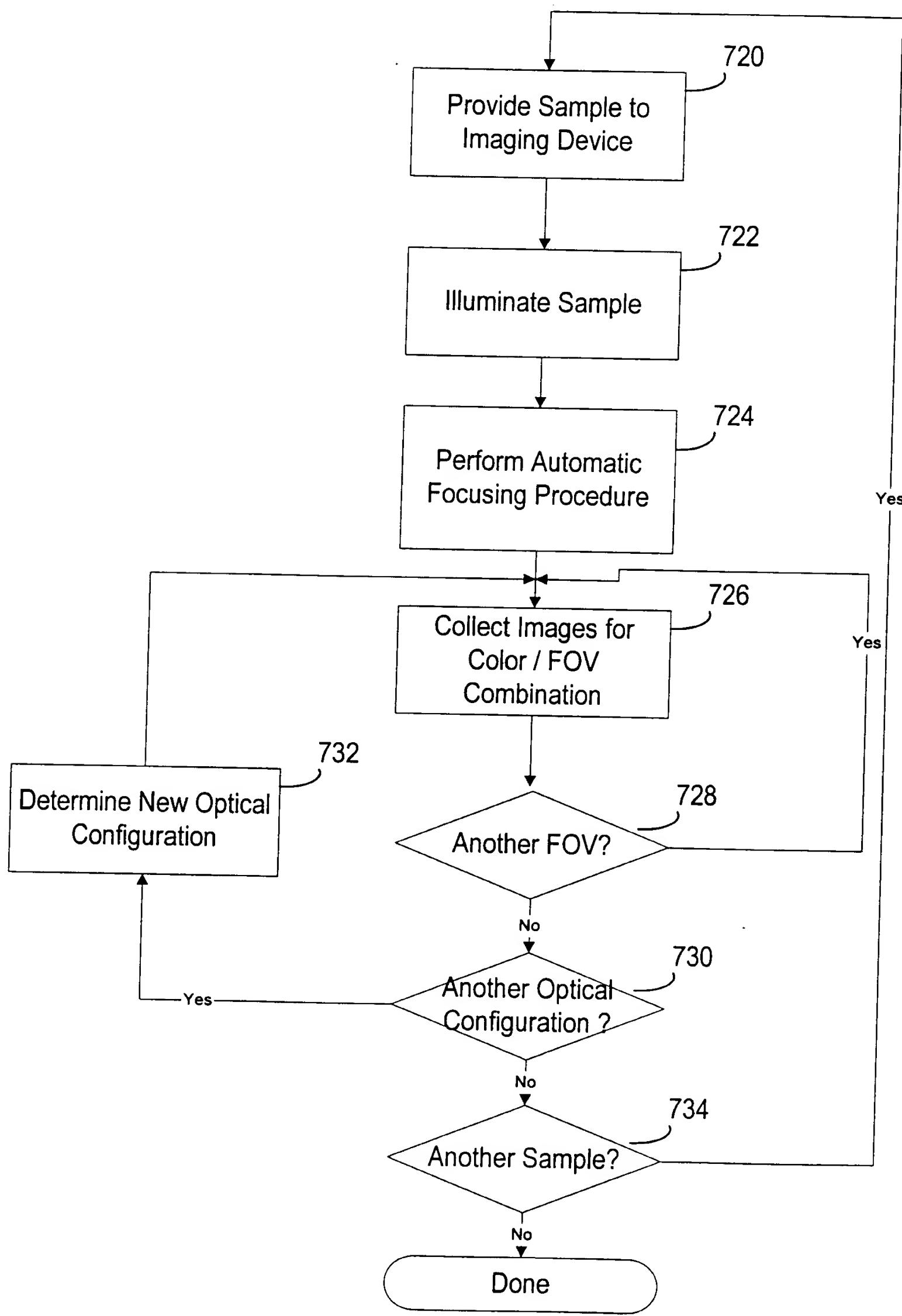


Fig. 7C  
Step 714 of Fig. 7B

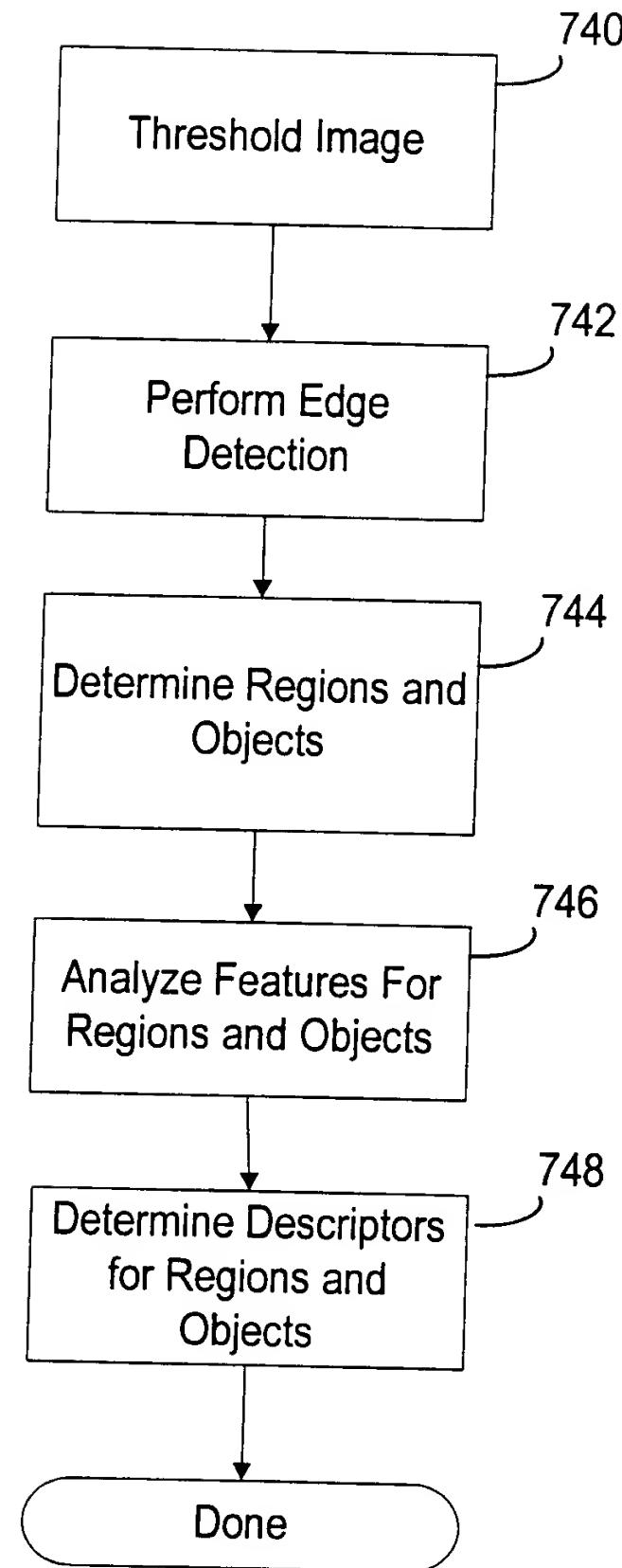


Fig. 7D  
Step 716 of Fig. 7B

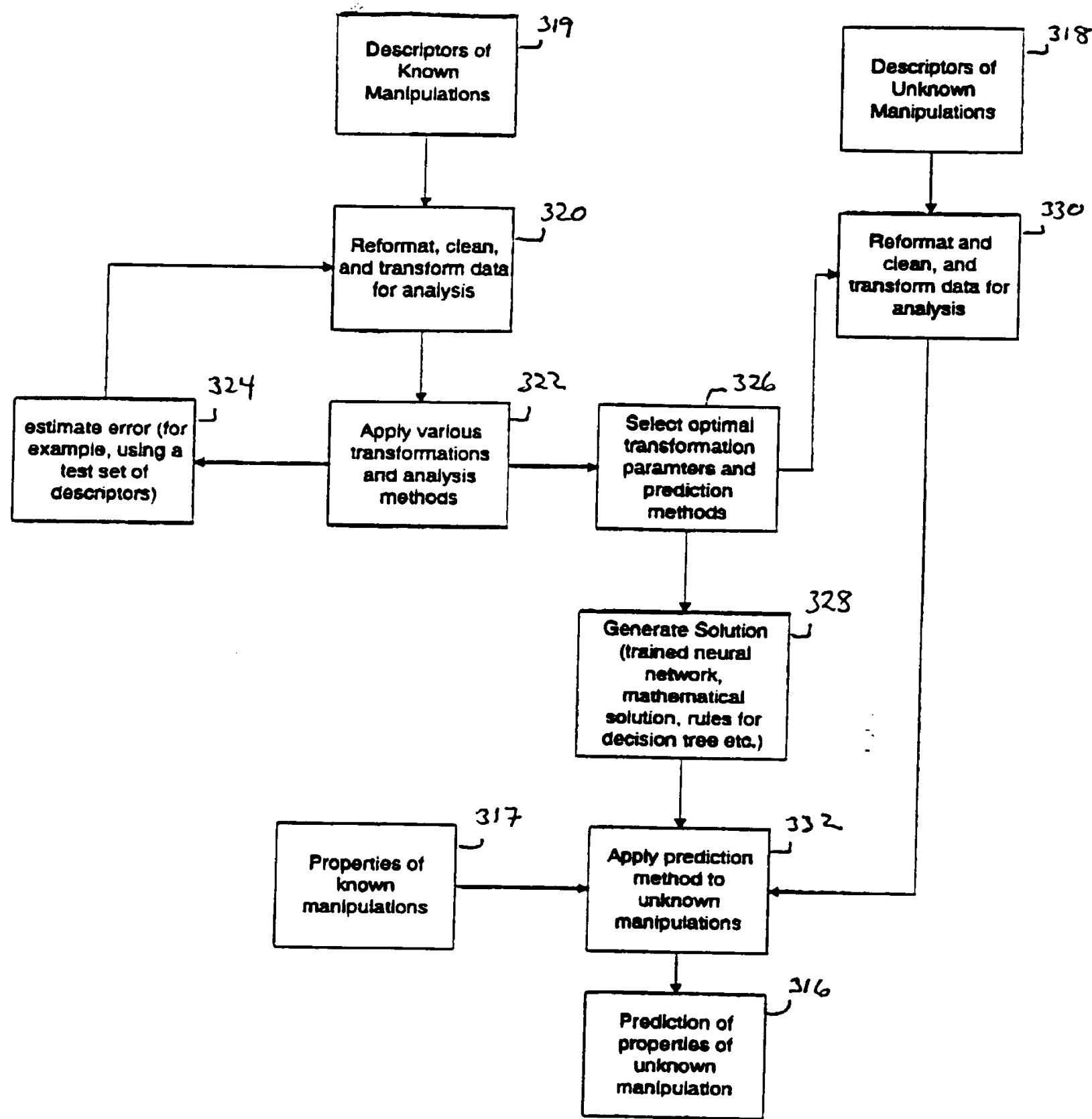


FIG. 7E

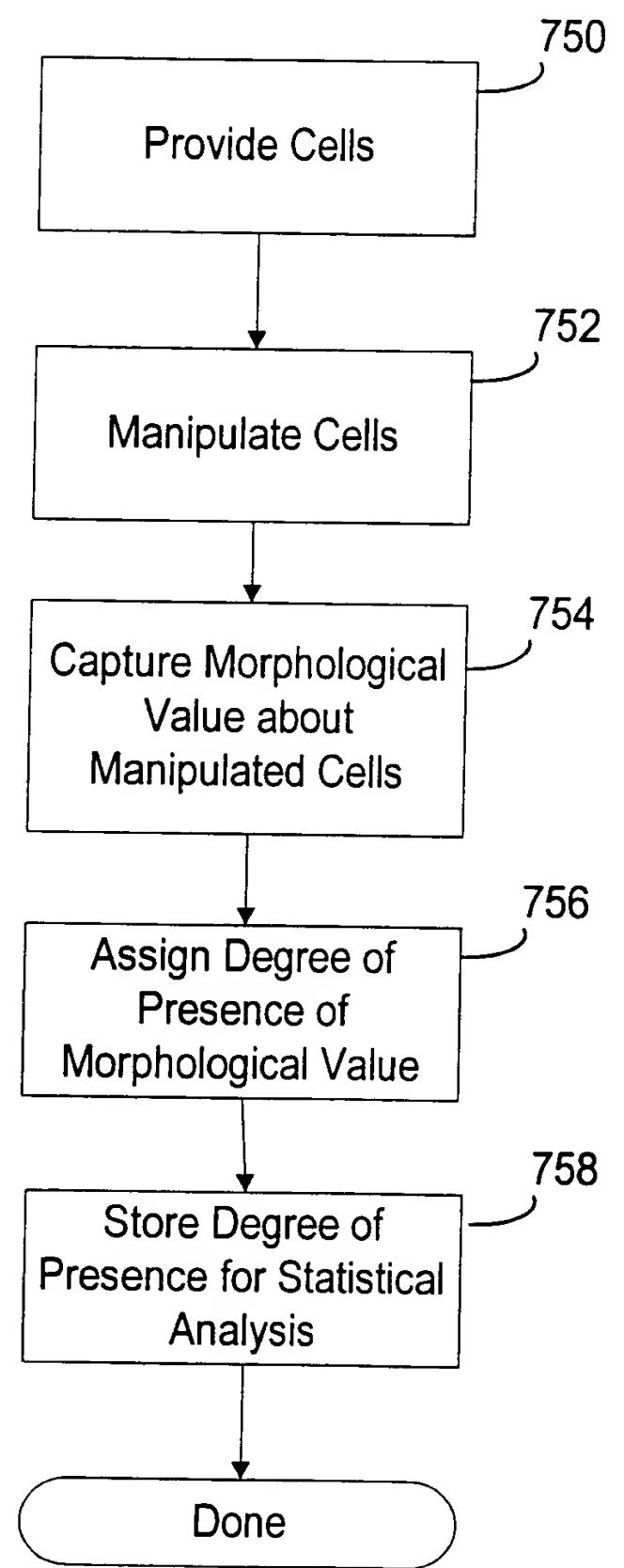


Fig. 7F

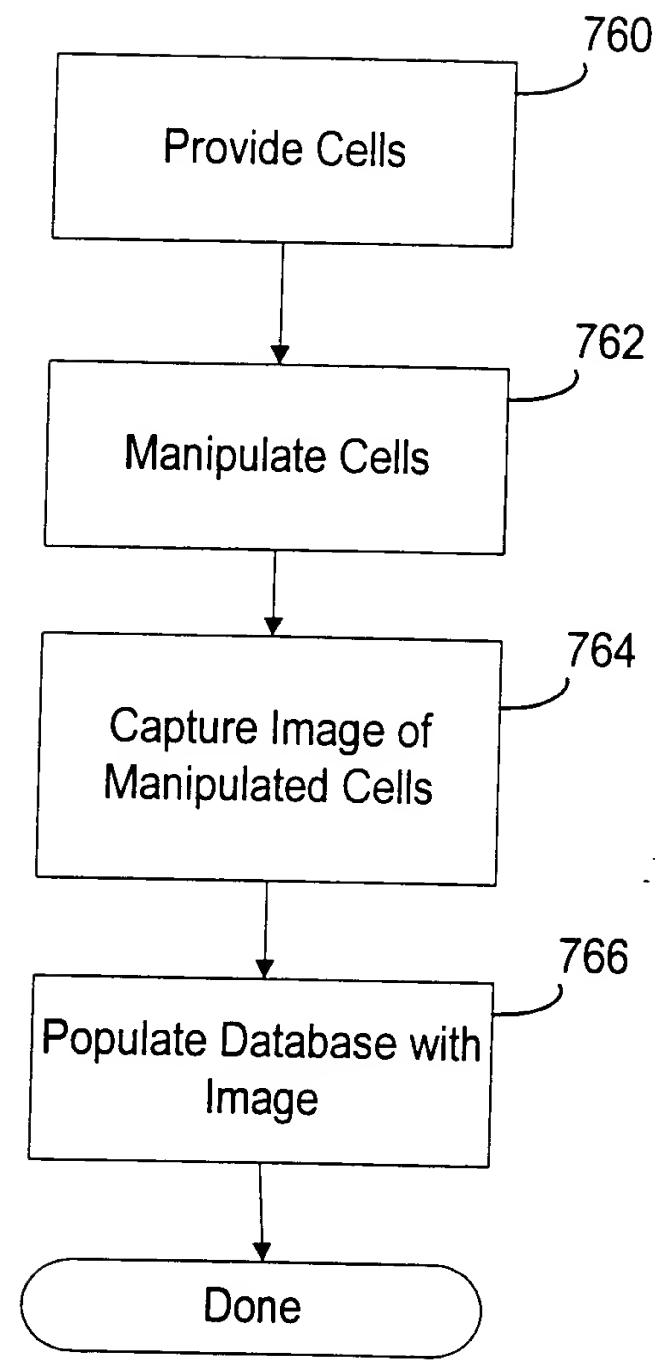


Fig. 7G

Average Gray Value

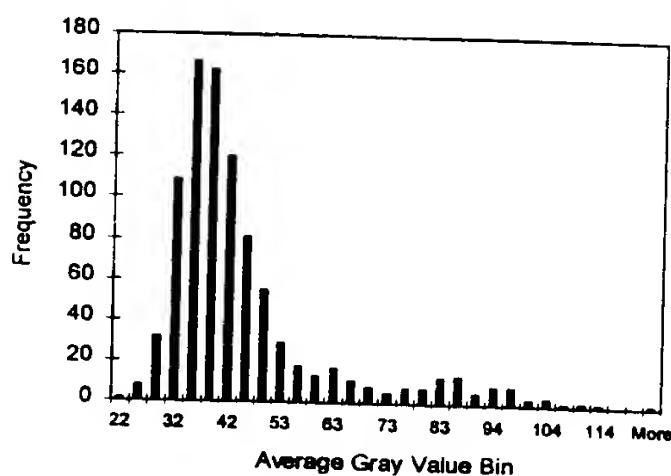


Fig. 8A

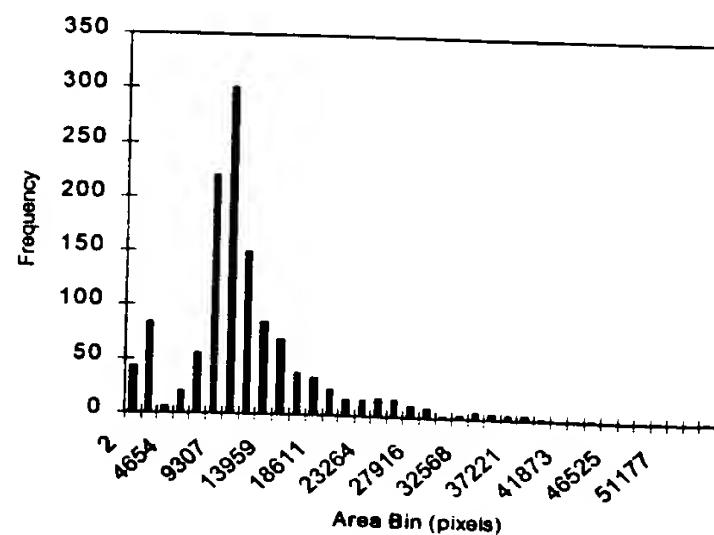


Fig. 8B

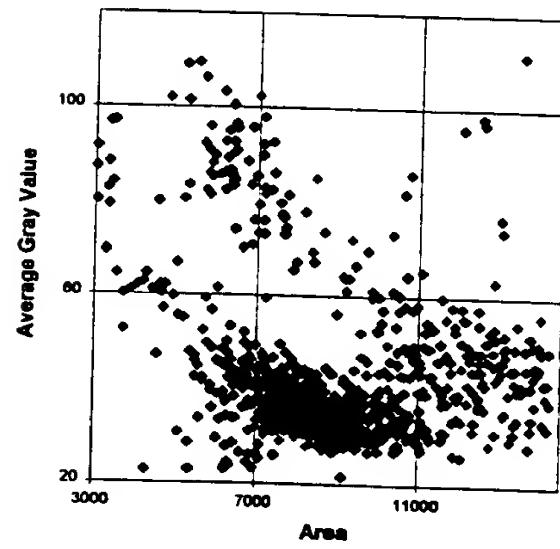


Fig. 8C

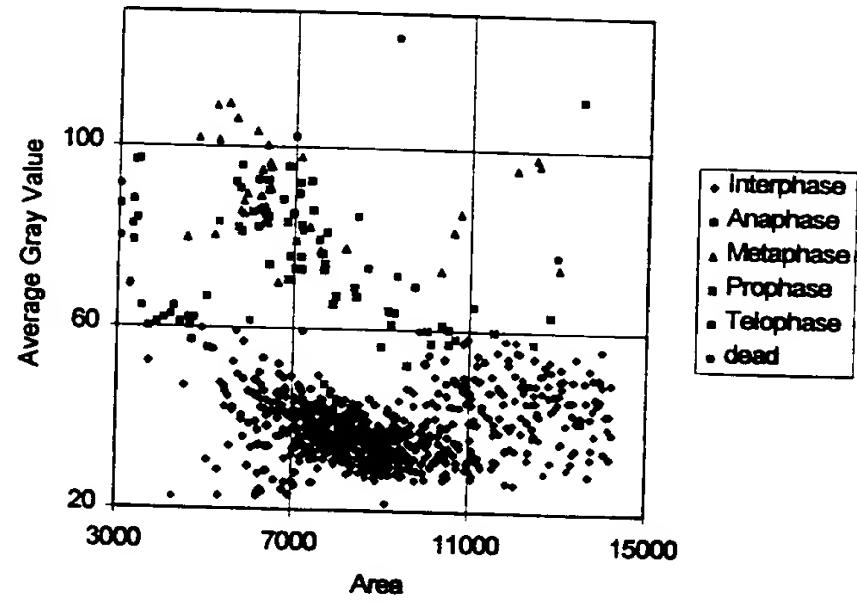


Fig. 8D

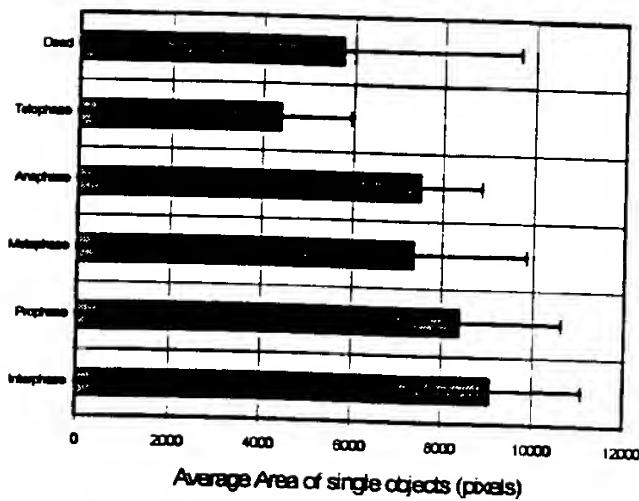


Fig. 8E

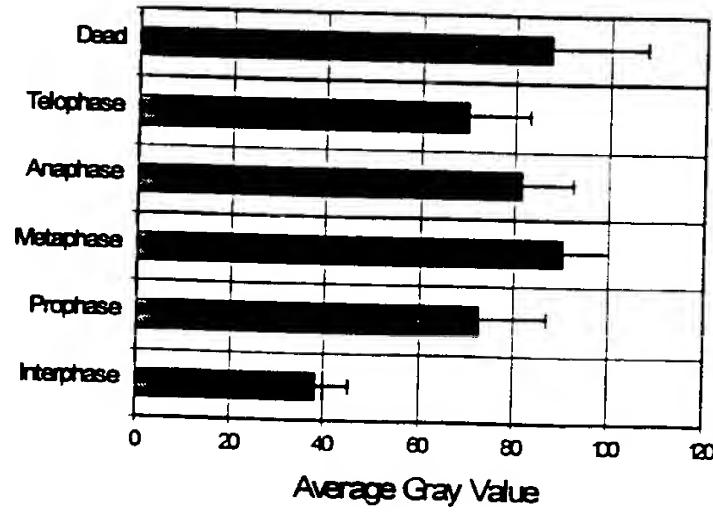
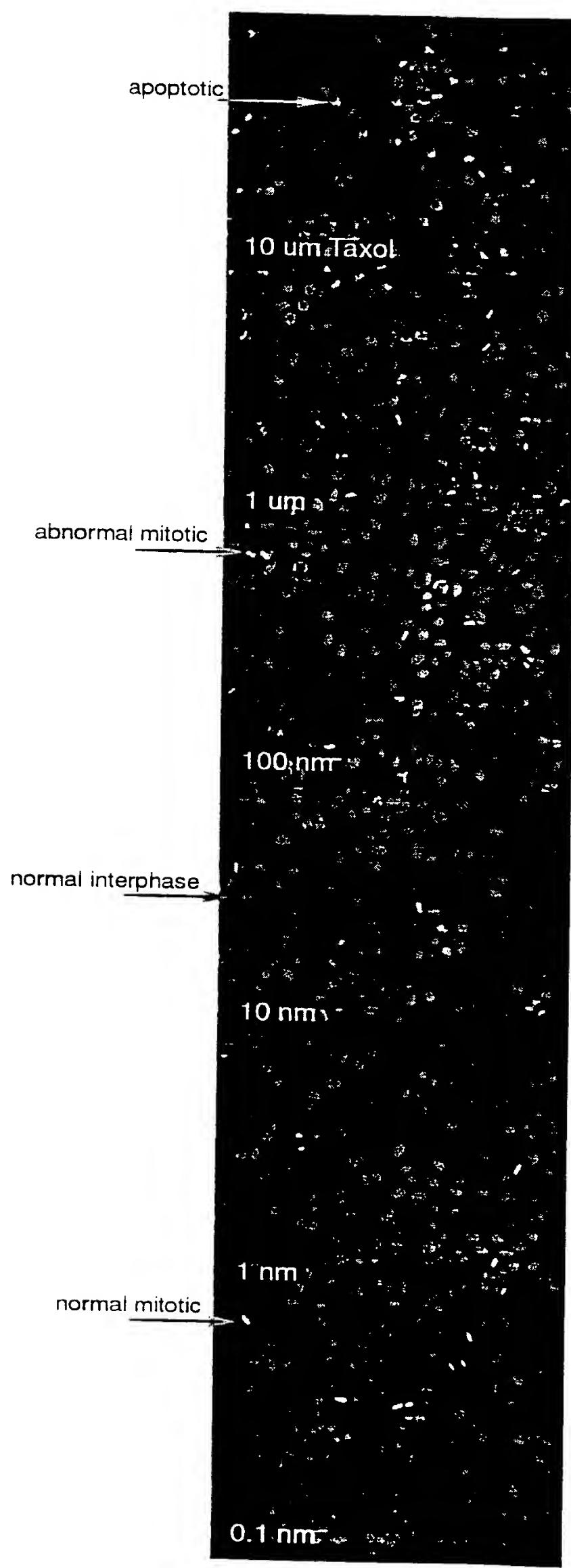


Fig. 8F

Fig 9



MDCK cells treated with Taxol for 4.5 hours

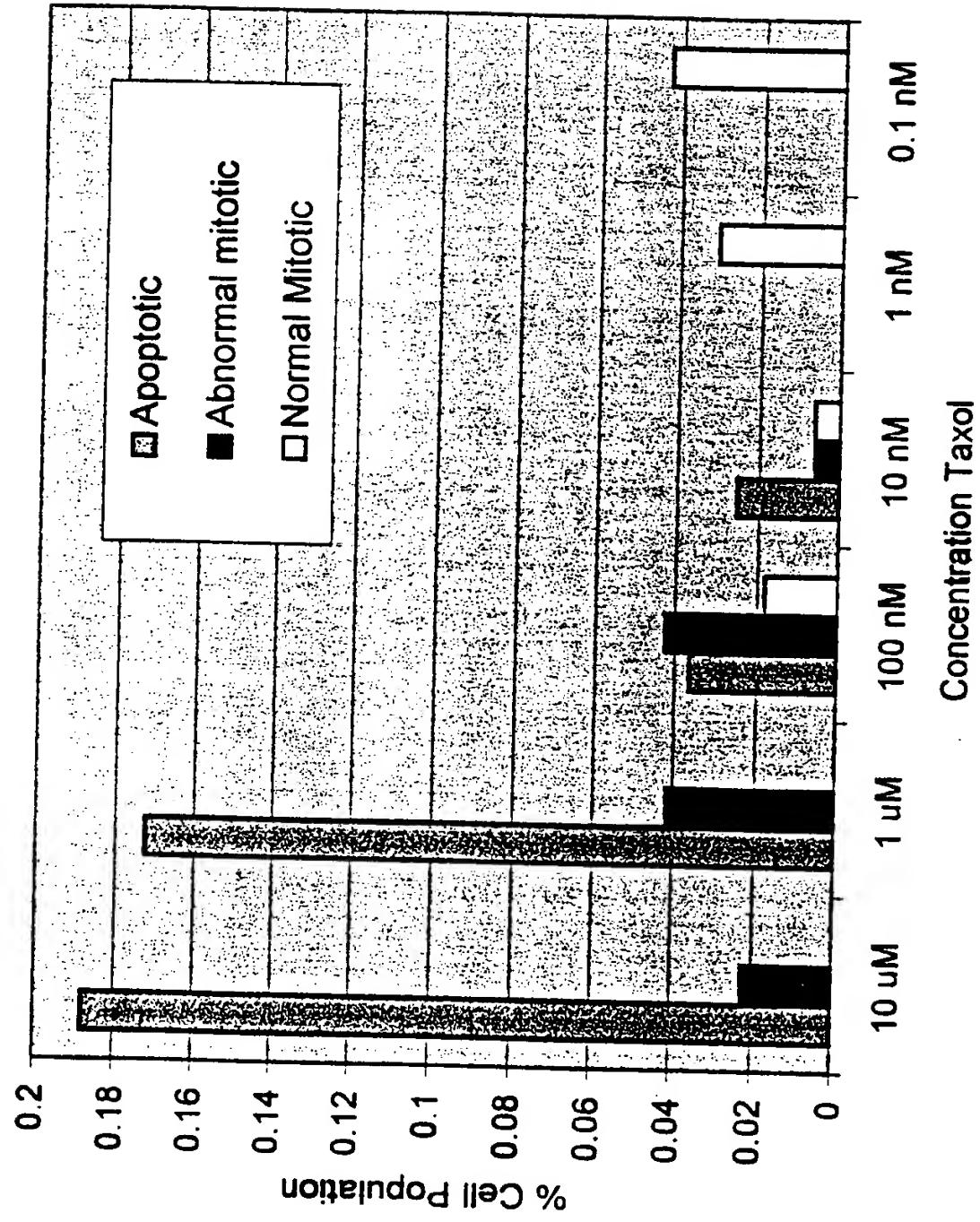


Fig. 10

Scatter Plot

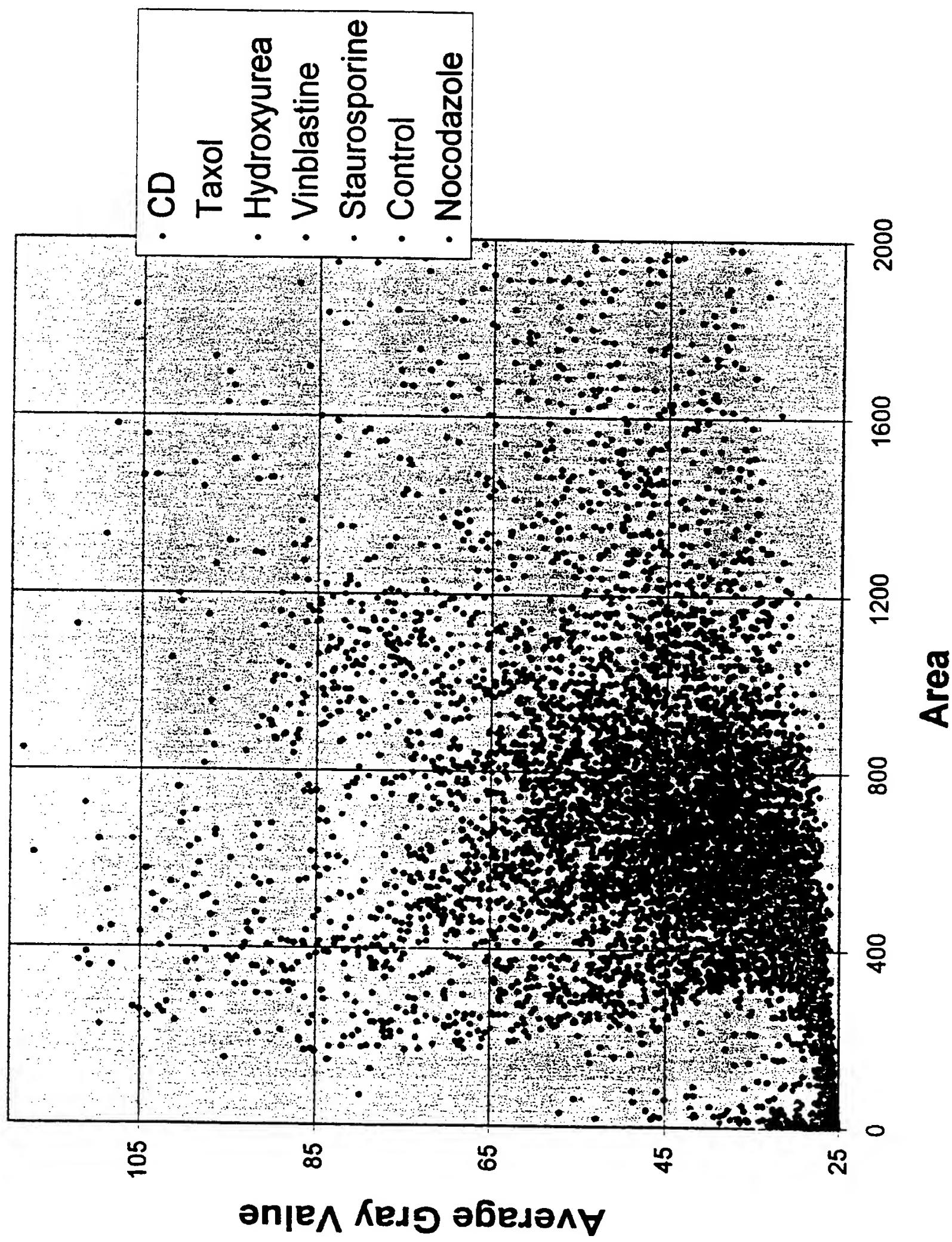
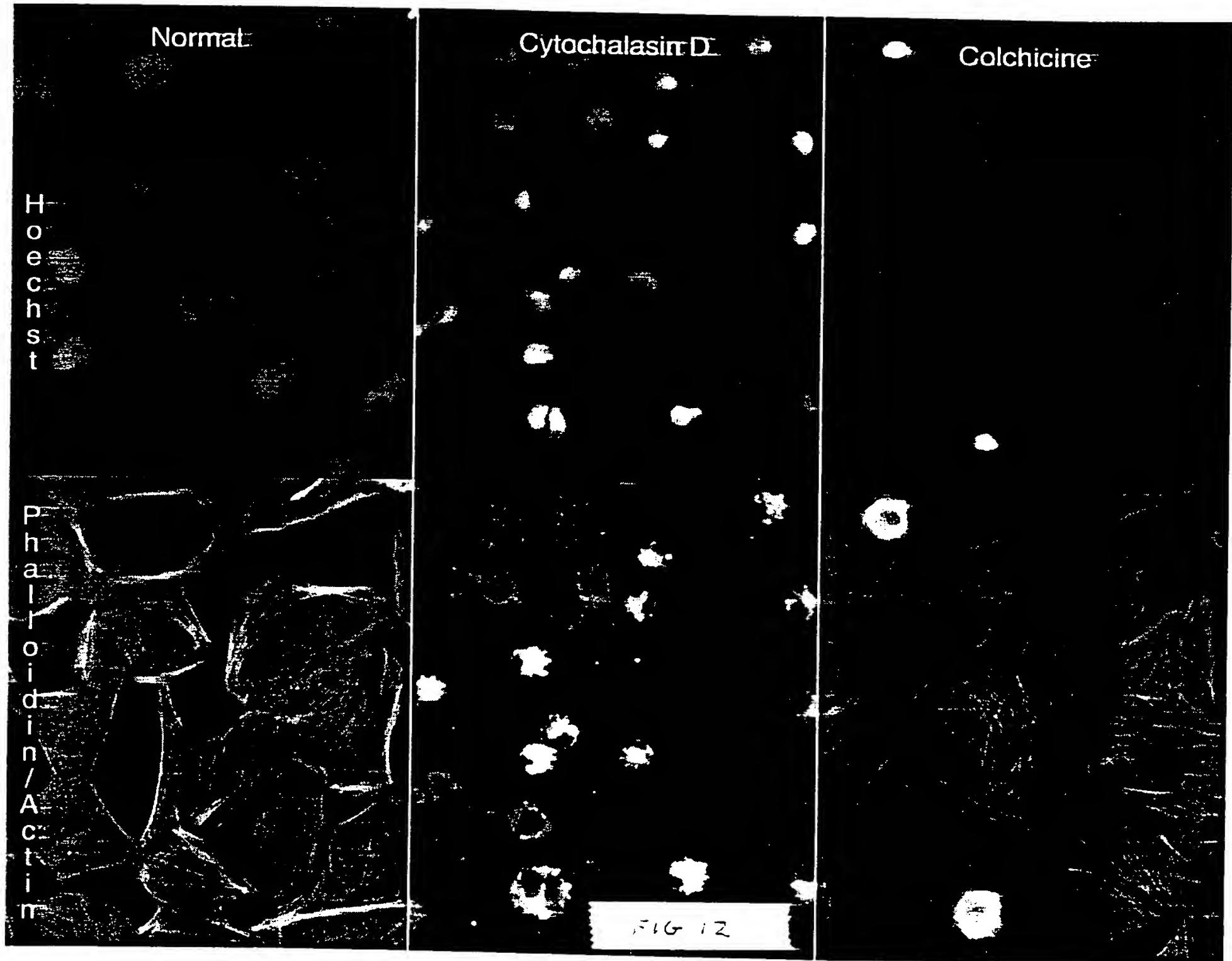


Fig. 11



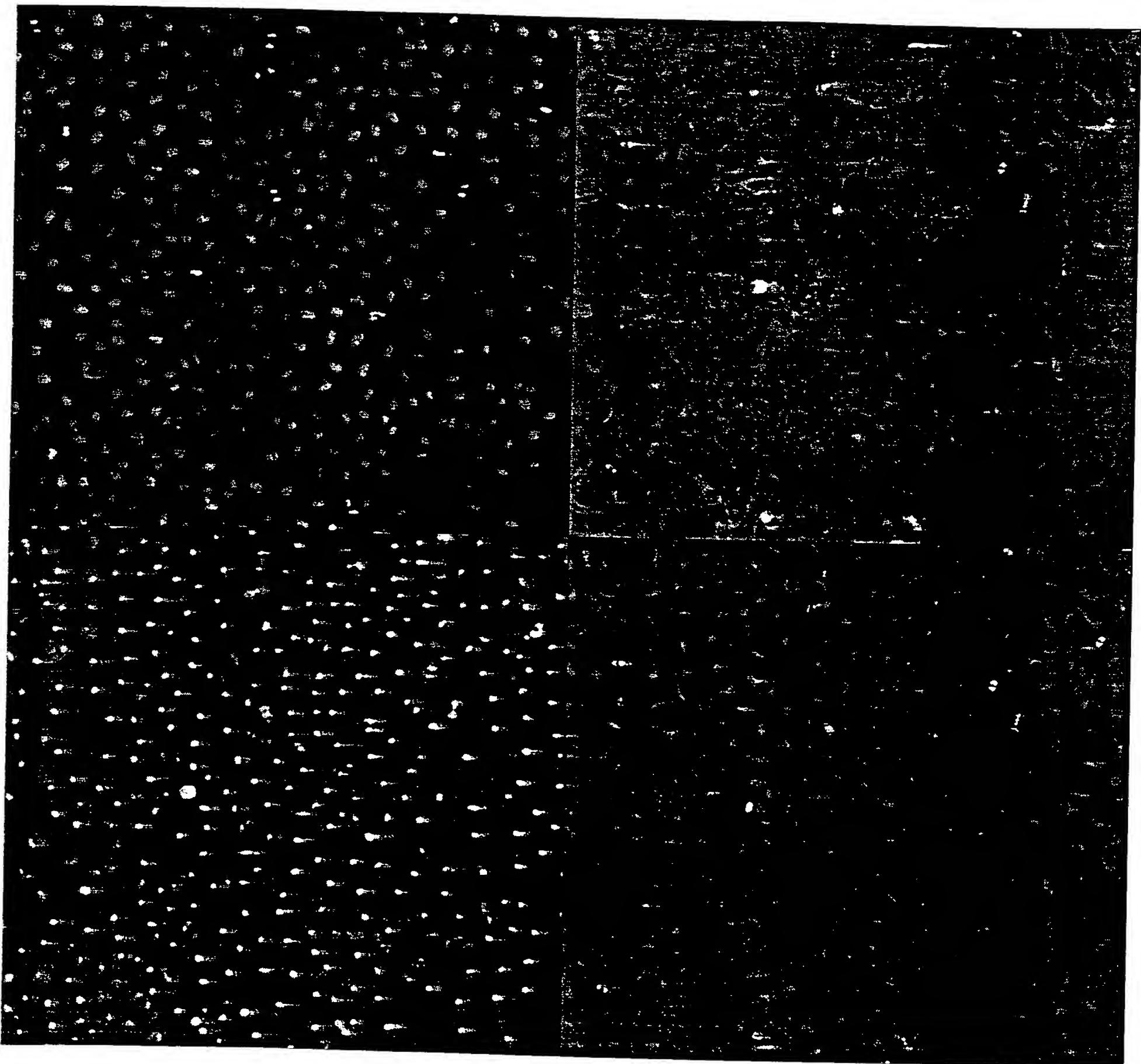


FIG. 13

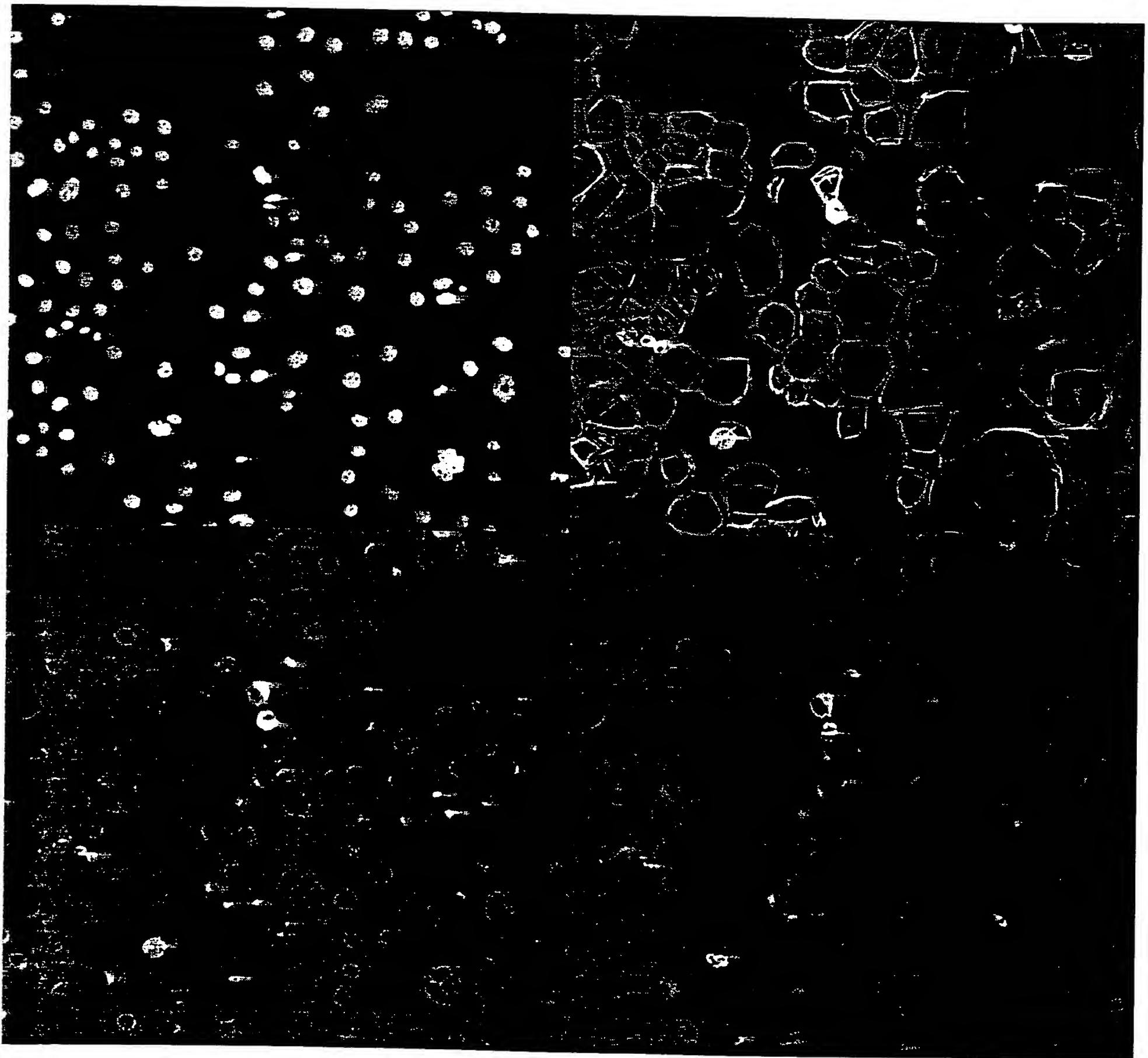


FIG. 14

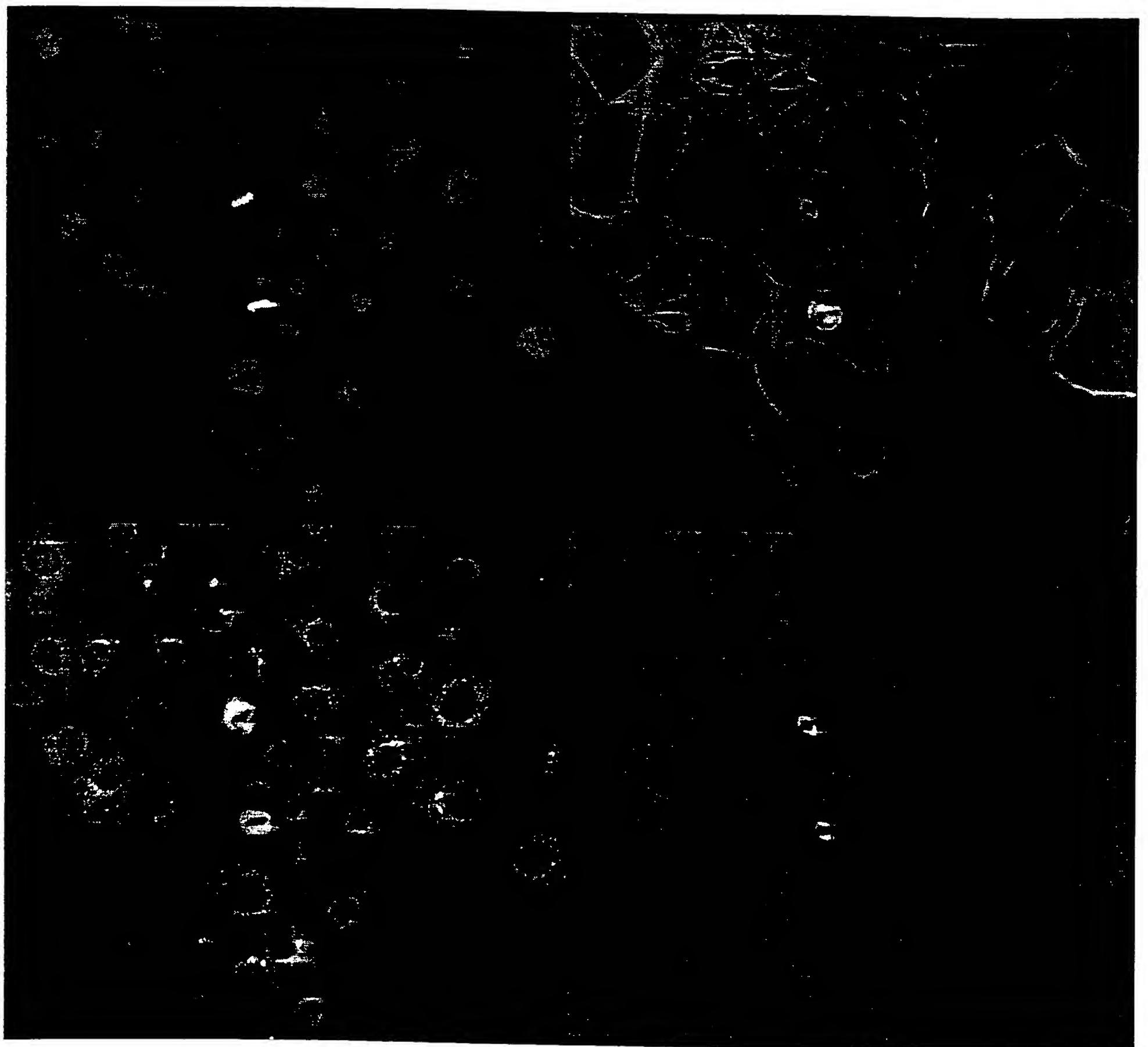


FIG. 15

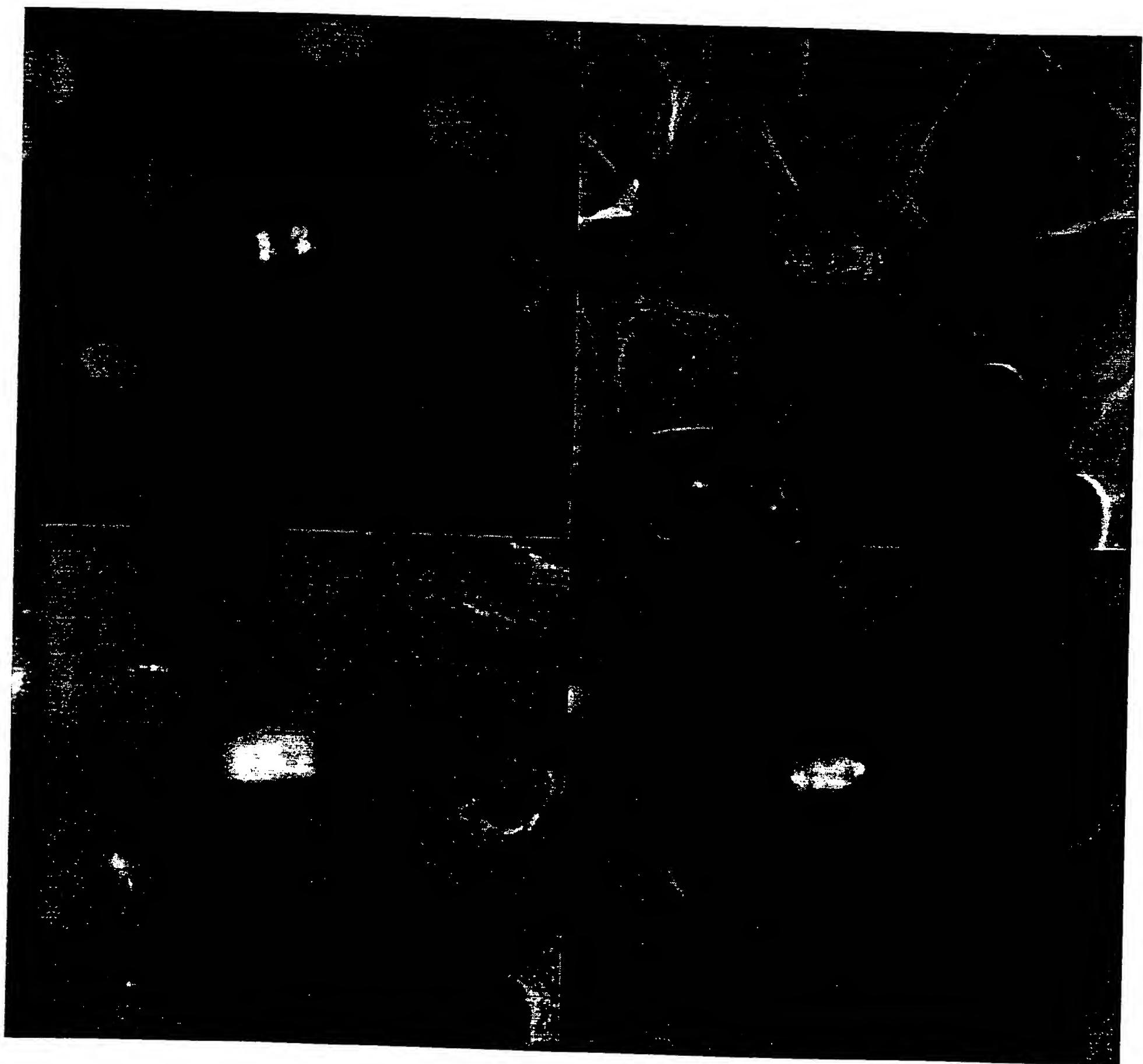


FIG. 16

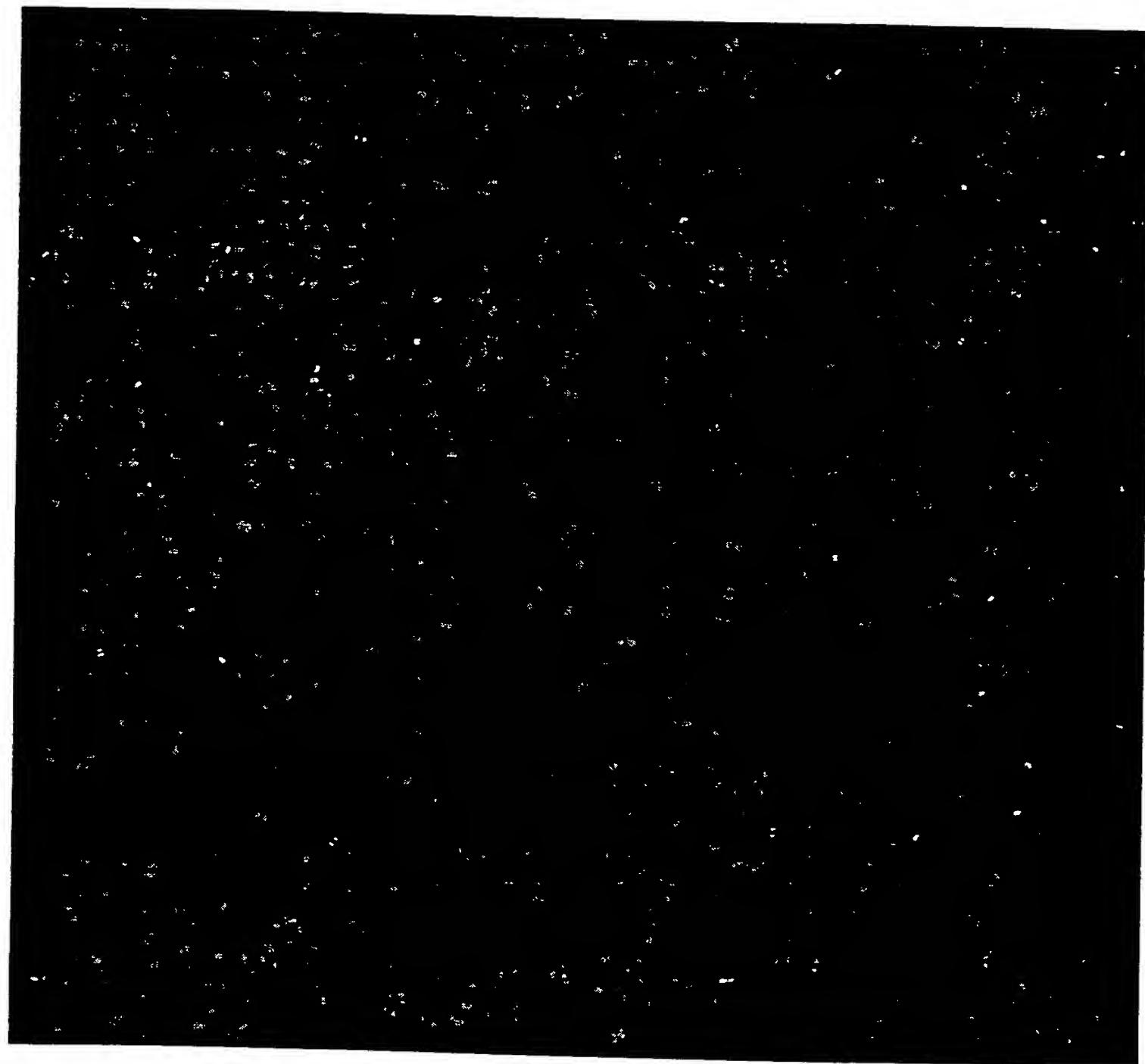


FIG. 17

**Conversion of morphometric parameters into nucleic acid code  
and clustering of the resulting sequences using Neighbor  
Joining method.**

Compound:	Measurements																						
	Count	Area	Perimeter	Length	Breadth	Fiber length	Fiber breadth	Shape factor	Ell. form factor	Inner radius	Outer radius	Mean radius	Equiv. radius	Equiv. sphere vol.	Equiv. prolate vol.	Equiv. oblate vol.	Equiv. sphere surface area	Average gray value	Total gray value	Optical density	Radial dispersion	Texture Difference Moment	EFA Harmonic 2, Semi-Maj
Control	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	
Taxol	a	t	t	t	t	t	t	a	t	t	t	t	t	t	t	t	t	t	t	t	t	t	
CD	c	a	a	a	t	a	t	c	a	a	a	a	a	a	a	a	t	a	a	a	t	a	
Nocodozol	c	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	
Staurosporine	g	g	c	a	a	t	a	a	t	g	a	a	a	t	g	g	g	a	a	t	a	a	
Vinblastine	c	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	g	t	t	t	t	
Hydroxyurea	g	t	t	t	t	t	t	g	t	t	t	t	t	t	t	t	t	t	c	t	a	t	

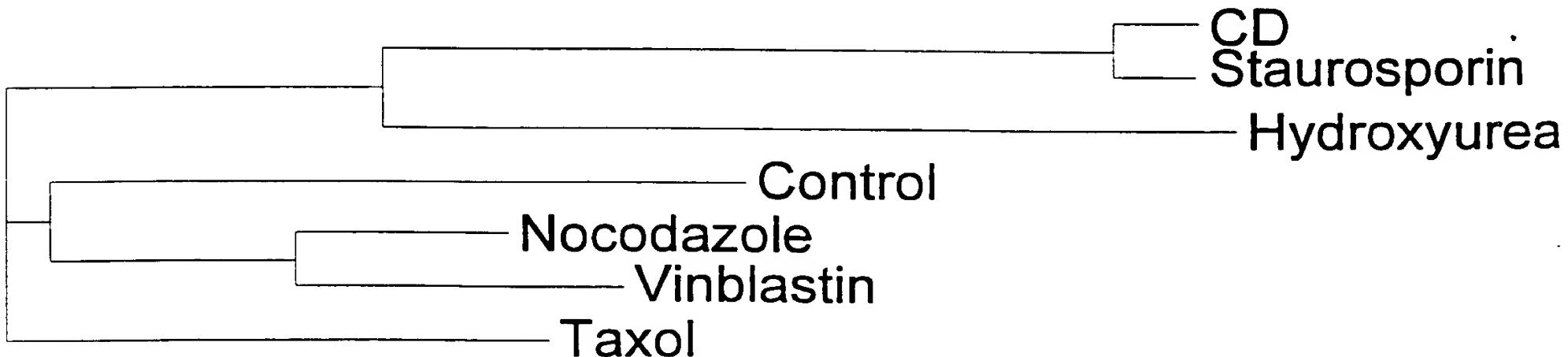


FIG 18

**Conversion of morphometric parameters into amino acid codes  
and clustering of the resulting sequences using Neighbor  
Joining method.**

Control	F G I Count
Taxol	F F M M P M P → Perimeter
CD	F G G G M G M → Length
Nocodazole	F G G G M G M → Breadth
Staurosporine	F M M W M P T R S M M M F M W F M M R M M M F G
Vinblastine	F W W M W W C W D S M W W M M M W M V V V G G H G M G G V
Hydroxyurea	S H H H H H H V H H H H H H H H H H H H H A H G H H D
	○ Fiber length ○ Fiber breadth ○ Shape factor ○ Ell. form factor ○ Inner radius ○ Outer radius ○ Mean radius ○ Equiv. sphere vol. ○ Equiv. prolate vol. ○ Equiv. oblate vol. ○ Average gray value ○ Total gray value ○ Optical density ○ Radial dispersion ○ Texture Difference Mo
	T EFA Harmonic 2, Semi-T EFA Harmonic 2, Semi-

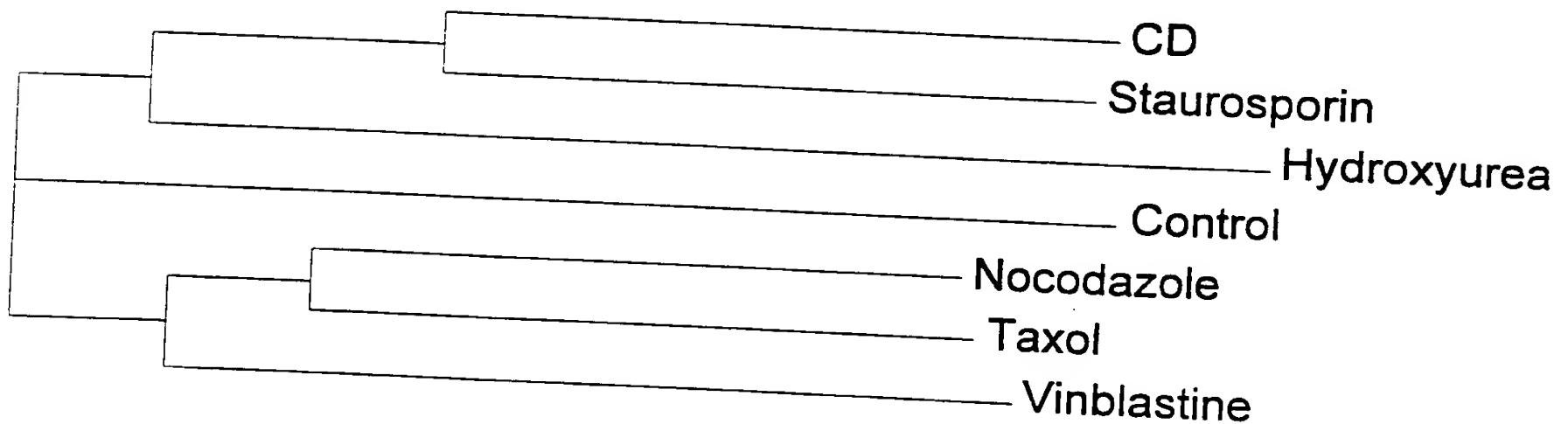


FIG. 19